

sPHENIX Calorimetry Electronics Meeting
8-June-2016

Neutron Irradiation Studies at Debrecen (F. Nagy):

- First results of SiPM irradiation damage was reported
- The neutron flux is continuous up to 17MeV with a logarithmic fall off.
- Dark current measurements have been made up to a total integrated flux of 10^{12} n/cm².
- IV curve measurements taken every 2 min during irradiation, at 23 °C
- There was extensive discussion about the plots. It was acknowledged that the report was preliminary but being provided to give everyone a sense of what was being done. General comment was that some of the slides need to be updated to include more detail on how the measurements were being made and under what conditions
- Updated slides will be sent out over the next few days as time permits.
- Plan is to submit a paper to IEEE on these studies in October.

Analog Update (S. Boose):

- New transformer lollipops have been assembled. Properly terminates the LVDS preamp signals with convenient connectors. Available on request for users, contact Steve.
- A new LED pulsing system is under development for possible use in the next test beam run. There was a question about the need for quartz fibers for the sPHENIX incarnation of the system to deal with the radiation levels.
- Design of new electronics for the test beam is on hold until it better understood what the outcome of the de-scoping exercise will be.

Digital Update (C. Chi):

- Jungo version V11 now working at Nevis
- Still looking at noise introduced by the VICOR supplies. The 4V supply trimmed to 2.7V seems to be the largest source of noise.
- Still expect to deliver a crate with one digitizer board and controller to BNL by early July.
- BNL will work to get racks setup and ready for the new electronics. This includes a new DCM-II rack.

Next meeting will be June 25, 2016 at 1330 EDT.